

09/2023055

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT 11973
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 90657	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International application No. PCT/AU 97/00367	International filing date 11 June 1997	Priority Date 11 June 1996
International Patent Classification (IPC) or national classification and IPC Int. Cl.⁶ C07K 4/00, 7/06, 14/00; A61K 38/08, 47/48		
Applicant (1) NORTHERN SYDNEY AREA HEALTH SERVICES (2) MANOLIOS, Nicholas		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of 6 sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheet(s).
3.	This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input checked="" type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application

Date of submission of the demand 22 December 1997	Date of completion of the report 30 March 1998
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No. (02) 6285 3929	Authorized Officer <i>C. A. Jenkins</i> GILLIAN JENKINS Telephone No. (02) 6283 2252

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

☒ the international application as originally filed.

☐ the description, pages , as originally filed,
 pages , filed with the demand,
 pages , filed with the letter of ,
 pages , filed with the letter of .

☐ the claims, Nos. , as originally filed,
 Nos. , as amended under Article 19,
 Nos. , filed with the demand,
 Nos. , filed with the letter of ,
 Nos. , filed with the letter of .

☐ the drawings, sheets/fig , as originally filed,
 sheets/fig , filed with the demand,
 sheets/fig , filed with the letter of ,
 sheets/fig , filed with the letter of .

2. The amendments have resulted in the cancellation of:

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/fig

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

Claims 14 and 15 are directed to methods of treatment of the human or animal body. Under Rule 67.1 of the PCT such subject matter is excluded from international preliminary examination. However, claims 14 and 15 have nonetheless been considered since their subject matter does not contravene Australian law.

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application,

☒ claims Nos.: 1 and 9 (in part)

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☒ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

The international search was restricted to those peptides exemplified in the specification. Consequently the opinion on claims 1 and 9 is based only on the subject matter in so far as covered by the search.

☐ no international search report has been established for said claim Nos.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-15	YES
	Claims	NO
Inventive step (IS)	Claims 1-15	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-15	YES
	Claims	NO

2. Citations and explanations

Claims 1-15 are novel and inventive since there is no disclosure of the claimed peptide sequences in a document published before the earliest priority date of the claims (see however Box VI, "certain documents cited").

VI. Certain documents cited**1. Certain published documents (Rule 70.10)**

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
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P, X WO 96/22306	25 July 1996	16 January 1996	16 January 1995
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Claims 1-5 and 13-15 would lack novelty if the above citation was published before the earliest priority date of the claims. WO 96/22306 discloses TCR inhibitors encompassed by the present claims (see in particular page 4, line 14 to page 5, line 10 and page 6, Table 2, peptide A).

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claims 1 and 9 are not fully supported by the description. The claims are extremely broad in scope and encompass a large number of possible peptides, however the description provides only a limited number of examples.
2. Claim 14 is not clear in its appendancy to claim 11, since claim 11 defines a peptide and not a composition.

PATENT COOPERATION TREATY
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Applicant (1) NORTHERN SYDNEY AREA HEALTH SERVICES (2) MANOLIOS, Nicholas		

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Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No. (02) 6285 3929	Authorized Officer GILLIAN JENKINS <i>G. A. Jenkins</i> Telephone No. (02) 6283 2252

1. Basis of the report

- 1 This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

☒ the international application as originally filed.

☐ the description, pages , as originally filed,
 pages , filed with the demand,
 pages , filed with the letter of ,
 pages , filed with the letter of .

☐ the claims, Nos. , as originally filed,
 Nos. , as amended under Article 19,
 Nos. , filed with the demand,
 Nos. , filed with the letter of ,
 Nos. , filed with the letter of .

☐ the drawings, sheets/fig , as originally filed,
 sheets/fig , filed with the demand,
 sheets/fig , filed with the letter of ,
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☐ the entire international application.

☒ claims Nos.: 1 and 9 (in part)

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☒ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

The international search was restricted to those peptides exemplified in the specification. Consequently the opinion on claims 1 and 9 is based only on the subject matter in so far as covered by the search.

☐ no international search report has been established for said claim Nos.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1 Statement**

Novelty (N)	Claims 1-15	YES
	Claims	NO
Inventive step (IS)	Claims 1-15	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-15	YES
	Claims	NO

2 Citations and explanations

Claims 1-15 are novel and inventive since there is no disclosure of the claimed peptide sequences in a document published before the earliest priority date of the claims (see however Box VI, "certain documents cited").

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
P. X WO 96/22306	25 July 1996	16 January 1996	16 January 1995

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2. Non-written disclosures (Rule 70.9)

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- 2 Claim 14 is not clear in its dependency to claim 11, since claim 11 defines a peptide and not a composition.

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty

For Receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum)

90657

Box No I TITLE OF INVENTION
T CELL ANTIGEN RECEPTOR PEPTIDES

Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (i.e. country) of residence if no State of residence is indicated below.)

NORTHERN SYDNEY AREA HEALTH SERVICES
Pacific Highway
St Leonards New South Wales 2065
Australia

☐ This person is also inventor.

Telephone No

Facsimile No.

Teleprinter No.

State (i.e. country) of nationality:

AU

State (i.e. country) of residence:

AU

This person is applicant
for the purposes of:

☐

all designated
States

☒

all designated States except
the United States of America

☐

the United States
of America only

☐

the States indicated in
the Supplemental Box

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (i.e. country) of residence if no State of residence is indicated below.)

MANOLIOS, Nicholas
244 Doncaster Avenue
Kensington, New South Wales 2033
Australia

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box is
marked, do not fill in below.)

State (i.e. country) of nationality:

AU

State (i.e. country) of residence:

AU

This person is applicant
for the purposes of:

☐

all designated
States

☐

all designated States except
the United States of America

☒

the United States
of America only

☐

the States indicated in
the Supplemental Box

☐

Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☐

agent

☐

common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

F B RICE & CO
28A Montague Street
BALMAIN NSW 2041
AUSTRALIA

Telephone No

(612) 9810 7133

Facsimile No.

(612) 9810 8200

Teleprinter No.

☐

Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

Regional Patent

- ☐ AP ARIPO Patent: KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☐ EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☐ OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

National Patent (if other kind of protection or treatment desired, specify on dotted line):

- | | |
|---|---|
| <input type="checkbox"/> AL Albania | <input type="checkbox"/> LU Luxembourg |
| <input type="checkbox"/> AM Armenia | <input type="checkbox"/> LV Latvia |
| <input type="checkbox"/> AT Austria | <input type="checkbox"/> MD Republic of Moldova |
| <input checked="" type="checkbox"/> AU Australia | <input type="checkbox"/> MG Madagascar |
| <input type="checkbox"/> AZ Azerbaijan | <input type="checkbox"/> MK The former Yugoslav Republic of Macedonia |
| <input type="checkbox"/> BA Bosnia and Herzegovina | <input type="checkbox"/> MN Mongolia |
| <input type="checkbox"/> BB Barbados | <input type="checkbox"/> MW Malawi |
| <input type="checkbox"/> BG Bulgaria | <input type="checkbox"/> MX Mexico |
| <input type="checkbox"/> BR Brazil | <input type="checkbox"/> NO Norway |
| <input type="checkbox"/> BY Belarus | <input type="checkbox"/> NZ New Zealand |
| <input checked="" type="checkbox"/> CA Canada | <input type="checkbox"/> PL Poland |
| <input type="checkbox"/> CH and LI Switzerland and Liechtenstein | <input type="checkbox"/> PT Portugal |
| <input type="checkbox"/> CN China | <input type="checkbox"/> RO Romania |
| <input type="checkbox"/> CU Cuba | <input type="checkbox"/> RU Russian Federation |
| <input type="checkbox"/> CZ Czech Republic | <input type="checkbox"/> SD Sudan |
| <input type="checkbox"/> DE Germany | <input type="checkbox"/> SE Sweden |
| <input type="checkbox"/> DK Denmark | <input type="checkbox"/> SG Singapore |
| <input type="checkbox"/> EE Estonia | <input type="checkbox"/> SI Slovenia |
| <input type="checkbox"/> ES Spain | <input type="checkbox"/> SK Slovakia |
| <input type="checkbox"/> FI Finland | <input type="checkbox"/> TJ Tajikistan |
| <input type="checkbox"/> GB United Kingdom | <input type="checkbox"/> TM Turkmenistan |
| <input type="checkbox"/> GE Georgia | <input type="checkbox"/> TR Turkey |
| <input type="checkbox"/> HU Hungary | <input type="checkbox"/> TT Trinidad and Tobago |
| <input type="checkbox"/> IL Israel | <input type="checkbox"/> UA Ukraine |
| <input checked="" type="checkbox"/> JP Japan | <input type="checkbox"/> UG Uganda |
| <input type="checkbox"/> KE Kenya | <input checked="" type="checkbox"/> US United States of America |
| <input type="checkbox"/> KG Kyrgyzstan | <input type="checkbox"/> UZ Uzbekistan |
| <input type="checkbox"/> KP Democratic People's Republic of Korea | <input type="checkbox"/> VN Viet Nam |
| <input type="checkbox"/> KR Republic of Korea | |
| <input type="checkbox"/> KZ Kazakstan | |
| <input type="checkbox"/> LC Saint Lucia | |
| <input type="checkbox"/> LK Sri Lanka | |
| <input type="checkbox"/> LR Liberia | |
| <input type="checkbox"/> LS Lesotho | |
| <input type="checkbox"/> LT Lithuania | |

Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet:

- ☐ YU Yugoslavia
- ☐ GH Ghana
- ☐
- ☐

In addition to the designations made above, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except the designation(s) of

The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit)

Box No VI PRIORITY CLAIMFurther priority claims are indicated in the Supplemental Box ☒

The priority of the following earlier application(s) is hereby claimed:

Country (in which, or for which, the application was filed)	Filing Date (day/month/year)	Application No.	Office of filing (only for regional or international application)
item (1) Australia	11 June 1996 11/06/96	PO0389	
item (2) Australia	11 June 1996 11/06/96	PO0390	
item (3) Australia	11 June 1996 11/06/96	PO0391	

Mark the following check-box if the certified copy of the earlier application is to be issued by the Office which for the purposes of the present international application is the receiving Office (a fee may be required):

☒ The receiving Office is hereby requested to prepare and transmit to the International

Bureau a certified copy of the earlier application(s) identified above as item(s): (1) to (6)

Box No VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (If two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used): ISA /

Earlier search Fill in where a search (international, international-type or other) by the International Searching Authority has already been carried out or requested and the Authority is now requested to base the international search, to the extent possible, on the results of that earlier search. Identify such search or request either by reference to the relevant application (or the translation thereof) or by reference to the search request:

Country (or regional Office):

Date (day/month/year)

Number:

Box No VIII CHECK LIST

This international application contains the following number of sheets:

1. request : 4 sheets
 2. description: 30 sheets
 3. claims : 3 sheets
 4. abstract : 1 sheets
 5. drawings: 21 sheets

Total : 59 sheets


This international application is accompanied by the item(s) marked below:

1. ☐ Separate signed power of attorney
 2. ☐ copy of general power of attorney
 3. ☐ statement explaining lack of signature
 4. ☐ priority document(s) identified in Box No. VI as item(s):
 5. ☒ fee calculation sheet
 6. ☐ separate indications concerning deposited microorganisms
 7. ☐ nucleotide and/or amino acid sequence listing (diskette)
 8. ☐ other (specify)

Figure No. _____ of the drawings (if any) should accompany the abstract when it is published.

Box No IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).


 JENNY PETERING
 for and on behalf of F B Rice & Co

For receiving Office use only

1. Date of actual receipt of the purported international application:	2. Drawings: <input type="checkbox"/> received <input type="checkbox"/> not received
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority specified by the applicant: ISA/	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

Supplemental Box

If the Supplemental Box is not used, this sheet need not be included in the request.

Use this box in the following cases:

1. If, in any of the Boxes, the space is insufficient to furnish all the information:

in particular:

- (i) if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America;
- (iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "Continuation" or "Continuation-in-part";
- (vi) if there are more than three earlier applications whose priority is claimed;

in such case, write "Continuation of Box No. ..." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient;

in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III;

in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, European or OAPI patent) for the purposes of which the named person is applicant;

in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, European or OAPI patent) for the purposes of which the named person is inventor;

in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;

in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;

in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.

in such case, write "Statement Concerning Non-Prejudicial Disclosures or Exceptions to Lack of Novelty" and furnish that statement below.

2. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudicial disclosures or exceptions to lack of novelty:

"Continuation of Box No VI"

<u>Country</u>	<u>Filing Date</u>	<u>Application No</u>
Item (4)		
Australia	11 June 1996	P00392
	11/06/96	
Item (5)		
Australia	11 June 1996	P00393
	11/06/96	
Item (6)		
Australia	11 June 1996	P00394
	11/06/96	

For receiving Office use only

PCT

FEE CALCULATION SHEET

Annex to the Request

Applicant's or agent's file reference 90657		International Application No Date stamp of the receiving Office	
Applicant NORTHERN SYDNEY AREA HEALTH SERVICES			
CALCULATION OF PRESCRIBED FEE			
1. TRANSMITTAL FEE	100.00	T	
2. SEARCH FEE	800.00	S	
International search to be carried out by <i>(If two or more International Searching Authorities are competent in relation to the international application, indicate the name of the Authority which is chosen to carry out the international search.)</i>			
3. INTERNATIONAL FEE Basic Fee The international application contains <u>59</u> sheets.			
first 30 sheets	\$685.00	b ₁	
29 x \$13.00 =	\$377.00	b ₂	
remaining sheets	additional amount		
Add amounts entered at b ₁ and b ₂ and enter total at B		\$1,062.00	B
Designation Fee The international application contains <u>5</u> designations			
5 x \$166.00 =	\$830.00	D	
number of designation fees payable (maximum 11) amount of designation fee			
Add amounts entered at B and D and enter total at I		\$1,892.00	I
<i>(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, a the total to be entered at I is 25% of the sum of the amounts entered at B and D.)</i>			
4. FEE FOR PRIORITY DOCUMENT	\$95.00	P	
5. TOTAL FEES PAYABLE			
Add amounts entered at T, S, I and P, and enter total in the TOTAL box ..		\$2,887.00	
		TOTAL	
<input type="checkbox"/> The designation fees are not paid at this time.			
MODE OF PAYMENT			
<input type="checkbox"/> authorization to charge deposit account (see below)	<input type="checkbox"/> bank draft	<input type="checkbox"/> coupons	
<input checked="" type="checkbox"/> cheque	<input type="checkbox"/> cash	<input type="checkbox"/> other (specify)	
<input type="checkbox"/> postal money order	<input type="checkbox"/> revenue stamps		
DEPOSIT ACCOUNT AUTHORIZATION <i>(this mode of payment may not be available at all receiving Offices)</i> The RO/ <input type="checkbox"/> is hereby authorized to charge the total fees indicated above to my deposit account. <input type="checkbox"/> is hereby authorized to charge any deficiency or credit any overpayment in the total fees indicated above to my deposit account. <input type="checkbox"/> is hereby authorized to charge the fee for preparation and transmittal of the priority document to the International Bureau of WIPO to my deposit account.			
Deposit Account Number		Date (day/month/year)	Signature

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 97/00367

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl⁶: C07K 4/00, 7/06, 14/00, A61K 38/08, 47/48.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
STN EXACT PEPTIDE SEQUENCE SEARCH
s (illlkvagf or illlkvag or lrilllgv or lgilllkv or illgkatly or mgrilll or llmtlrllwss or iivtdviatl or ivivdicit or flfaeivsi or agfnllmt or ygradcgits or wgradcgits or ygradcits or ssdvpdatlt)/sqep.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P.X	WO. 96/22306 (NORTHERN SYDNEY AREA HEALTH SERVICE) 25 July 1996 see in particular peptide A. Table 2, page 6	1-5, 13-15
P.X	NATURE MEDICINE, Vol. 3, No. 1, January 1997, pages 84-88. N. Manolios et al., 'T-cell antigen receptor transmembrane peptides modulate T-cell function and T-cell mediated disease'. see in particular peptides A, B, H and I, page 84	1-5, 13-15

☐ Further documents are listed in the continuation of Box C

☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
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"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search
22 July 1997

Date of mailing of the international search report

05 AUG 1997

Name and mailing address of the ISA/AU
AUSTRALIAN INDUSTRIAL PROPERTY ORGANISATION
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Authorized officer

G. HEARDER

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INTERNATIONAL SEARCH REPORT

.....ernational Application No.

PCT/AU 97/00367

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1 and 9
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

A complete search of claims 1 and 9 was not feasible for economic reasons. Consequently the search has been limited to those peptides exemplified in the specification.
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims: it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Information on patent family members

PCT/AU 97/00367

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

[illegible]

PATENT COOPERATION TREATY

PCT/AU97/00367

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
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Crystal Plaza 2
Washington, DC 20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 19 January 1998 (19.01.98)	Applicant's or agent's file reference 90657
International application No. PCT/AU97/00367	Priority date (day/month/year) 11 June 1996 (11.06.96)
International filing date (day/month/year) 11 June 1997 (11.06.97)	
Applicant MANOLIOS, Nicholas	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
22 December 1997 (22.12.97)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Form PCT/IB/331 (July 1992)

Authorized officer

P.Regis

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

F. B. RICE & CO.
605 Darling Streett
Balmain, NSW 2041
AUSTRALIE

Date of mailing (day/month/year) 19 February 1998 (19.02.98)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 90657	
International application No. PCT/AU97/00367	International filing date (day/month/year) 11 June 1997 (11.06.97)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address F. B. RICE & CO. 28A Montague Street Balmain, NSW 2041 Australia	State of Nationality	State of Residence
	Telephone No. (612)9810-7133	
	Facsimile No. (612)9810-8200	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address F. B. RICE & CO. 605 Darling Streett Balmain, NSW 2041 Australia	State of Nationality	State of Residence
	Telephone No. (612)9810-7133	
	Facsimile No. (612)9810-8200	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer P.Regis Telephone No.: (41-22) 338.83.38
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PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C07K 4/00, 7/06, 14/00, A61K 38/08, 47/48	A1	(11) International Publication Number: WO 97/47644
		(43) International Publication Date: 18 December 1997 (18.12.97)

(21) International Application Number: PCT/AU97/00367

(22) International Filing Date: 11 June 1997 (11.06.97)

(30) Priority Data:

PO 0389	11 June 1996 (11.06.96)	AU
PO 0390	11 June 1996 (11.06.96)	AU
PO 0391	11 June 1996 (11.06.96)	AU
PO 0392	11 June 1996 (11.06.96)	AU
PO 0393	11 June 1996 (11.06.96)	AU
PO 0394	11 June 1996 (11.06.96)	AU

(71) Applicant (for all designated States except US): NORTHERN SYDNEY AREA HEALTH SERVICES [AU/AU]; Pacific Highway, Saint Leonards, NSW 2065 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MANOLIOS, Nicholas [AU/AU]; 244 Doncaster Avenue, Kensington, NSW 2033 (AU).

(74) Agent: F. B. RICE & CO.; 28A Montague Street, Balmain, NSW 2041 (AU).

(81) Designated States: AU, CA, JP, US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published*With international search report.*

(54) Title: T CELL ANTIGEN RECEPTOR PEPTIDES

(57) Abstract

The present invention provides peptides which affect T-cells, presumably by action on the T-cell antigen receptor. The present invention further relates to the therapy of various inflammatory and autoimmune disease states involving the use of these peptides. Specifically, the peptides are useful in the treatment of disorders where T-cells are involved or recruited. In one aspect the peptides have the formula: R1-A-B-A-R2 in which A is a hydrophobic amino acid or a hydrophobic peptide sequence comprising between 2 and 10 amino acids; B is a charged amino acid; R1 is NH₂ and R2 is COOH. In another aspect the peptides have the formula: R1-A-B-C-R2 in which A is a peptide sequence of between 0 and 5 amino acids; B is cysteine; C is a peptide sequence of between 2 to 10 amino acids; R1 is NH₂; and R2 is COOH.

FOR THE PURPOSES OF INFORMATION ONLY

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